Application No. 10/629,552
Rep 3 of it al Rejection of April 12, 2006

AMEN

AMENDMENTS TO THE CLAIMS

Claims 1-63 (Canceled)

Claim 64 (New): A dye-comprising aqueous polymer dispersion, wherein the polymer particles have an average diameter $d_z < 1000$ nm and comprise at least 0.01% by weight of at least one oil-soluble dye in molecularly disperse form and which, furthermore, comprise, in copolymerized form, at least one monoethylenically unsaturated monomer A having a water solubility > 0.01 g/l and at least one monoethylenically unsaturated monomer B having a water solubility < 0.01 g/l (at 25°C and 1 atm), wherein the amount of dye in the polymer particles is at least 3 % by weight, based on the polymerized monomers.

Claim 65 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 64, in which the polymer particles further comprise at least one polymerization-active compound which is selected from

- monomers C which have at least two nonconjugated, ethylenically unsaturated double bonds, and
 - crosslinking monomers D.

Claim 66 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 64, wherein the polymeric matrix formed from the copolymerized monomers A, B and, if desired, C and D comprises

- from 50 to 99.5% by weight of monomers A,
- from 0.5 to 50% by weight of monomers B,
- from 0 to 30% by weight of monomers C which have at least two nonconjugated, ethylenically unsaturated double bond, and
 - from 0 to 30% by weight of crosslinking monomers D.

Claim 67 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 64, wherein the amount of dye in the polymer particles is from 5 to 30 % by weight, based on the polymerized monomers.

Claim 68 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 65, comprising at least one noncopolymerizable dye, wherein the polymer matrix comprises, in copolymerized form, at least one compound selected from the monomers C and the monomers D, in amounts of > 0.1% by weight, based on the polymer matrix.

Claim 69 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 64, comprising at least one copolymerizable oil-soluble dye having at least one copolymerizable, ethylenically unsaturated double bond which does not belong to the chromophore of the dye.

Claim 70 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 64, wherein the polymer particles have a monomodal particle size distribution with an average particle diameter d_z in the range from 100 to 400 nm.

Claim 71 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 64, wherein the monomers A copolymerized in the polymer particles comprise not more than 30 % by weight, based on the total amount of monomers A, monoethylenically unsaturated monomers A having a water solubility of > 60 g/l (at 25°C and 1 atm).

Claim 72 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 64, wherein the monomers A copolymerized in the polymer particles comprise

- from 0.5 to 30% by weight of at least one monomer A1 having a water solubility > 60 g/l (in each case at 25°C and 1 atm), based on the total monomer amount, and
- from 70 to 99.5% by weight of at least one monomer A2 having a water solubility < 60 g/l (in each case at 25°C and 1 atm), based on the total monomer amount.

Claim 73 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 72, wherein the monomers A1 are selected from monoethylenically unsaturated cationic monomers.

Claim 74 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 72, wherein the momomers A1 are selected from monoethylenically unsaturated monomers which have at least one acid group, possibly in deprotonated form.

Claim 75 (New): A dye-comprising polymer powder obtained by drying an aqueous polymer dispersion as claimed in claim 64.

Claim 76 (New): An aqueous dye-comprising formulation comprising:

- i. at least one dye-comprising polymer which is present in the formulation in the form of dispersed polymer particles, wherein the polymer particles have an average diameter $d_z < 1000$ nm and comprise at least 0.01% by weight of at least one oil-soluble dye in molecularly disperse form and which, furthermore, comprise at least one monoethylenically unsaturated monomer A having a water solubility > 0.01 g/l and at least one monoethylenically unsaturated monomer B having a water solubility < 0.01 g/l (at 25°C and 1 atm), wherein the amount of dye in the polymer particles is at least 3 % by weight, based on the polymerized monomers and
 - ii. customary auxiliaries.

Claim 77 (New): A formulation as claimed in claim 76, additionally comprising at least one water-soluble polymer PW.

Claim 78 (New): A formulation as claimed in claim 77, wherein the polymer PW has cationic groups.

Claim 79 (New): A formulation as claimed in claim 78, wherein the polymer PW is a copolymer comprising at least one monoethylenically unsaturated, cationic monomer and at least one further, neutral monomer.

Application No. 10/629,552 Reply to Final Rejection of April 12, 2006

Claim 80 (New): A formulation as claimed in claim 79, wherein the polymer PW is selected from:

- copolymers of 1-vinylpyrrolidone with 1-vinyl-3-alkylimidazolium salts,
- copolymers of 1-vinylpyrrolidone with

 $methacryloyloxyethyltrial kylammonium\ salts,\ and$

- terpolymers of vinylpyrrolidone and vinylcaprolactam with 1-vinyl-3-alkylimidazolium salts.

Claim 81 (New): A formulation as claimed in claim 77, wherein the polymer PW has acidic functional groups and/or anionic functional groups.

Claim 82 (New): A formulation as claimed in claim 81, wherein the polymer PW is a copolymer comprising

- at least one monoethylenically unsaturated monomer MA selected from monomers having at least one acid group and salts thereof, and
 - at least one further, neutral monomer.

Application No. 10/629,552

Reply to Final Rejection of April 12, 2006

Claim 83 (New): A formulation as claimed in claim 82, wherein the polymer PW is selected from

- homopolymers and copolymers of 2-acrylamido-2-methylpropanesulfonic acid,
 - copolymers of acrylic acid and/or of methacrylic acid with styrene,
- copolymers of acrylic acid and/or of methacrylic acid with C_1 - C_{10} -alkyl esters of acrylic acid and/or of methacrylic acid,
 - copolymers of maleic acid or of maleic anhydride with olefins,
 - the formaldehyde condensates of an arylsulfonic acid, and salts thereof.

Claim 84 (New): A dye-comprising formulation as claimed in claim 83 which is an ink.

Application No. 10/629,552 Reply to Final Rejection of April 12, 2006

Claim 85 (New): An aqueous pigmented formulation comprising

- i. at least one dye-comprising polymer which is present in the formulation in the form of dispersed polymer particles and wherein the polymer particles have an average diameter $d_z < 1000$ nm and comprise at least 0.01% by weight of at least one oil-soluble dye in molecularly disperse form and which, furthermore, comprise at least one monoethylenically unsaturated monomer A having a water solubility > 0.01 g/l and at least one monoethylenically unsaturated monomer B having a water solubility < 0.01 g/l (at 25°C and 1 atm), wherein the amount of dye in the polymer particles is at least 3 % by weight, based on the polymerized monomers and where the oil-soluble dye comprises at least one optical brightener,
- ii. at least one dye-free, film-forming water-insoluble polymer which comprises ethylenically unsaturated monomers, in the form of its aqueous dispersion,
- iii. at least one inorganic white pigment alone or together with an inorganic filler, and
 - iv. auxiliaries.

Claim 86 (New): A formulation as claimed in claim 85, the formulation being a paper coating slip.